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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/624,191

07/21/2003

Kenneth J. Micklash II

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QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.

P O BOX 458

ALAMEDA, CA 94501

EXAMINER

LEVKOVICH, NATALIA A

ART UNIT

PAPER NUMBER

1743

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,191

Applicant(s)

MICKLASH ET AL.

Examiner

Natalia Levkovich

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1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39, 72-83 and 85-109 is/are pending in the application.
- 4a) Of the above claim(s) 72-83 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 and 85-109 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 11-39, 72-83 and 85-109 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Examiner acknowledges the election without traverse of claims 1-71 and 84-115 filed on 01/30/2006. However, the preliminary amendment dated 07/21/2003 and just discovered by the Examiner, canceled claims 40-71, 84 and 110-119. Therefore, claims 1-39 and 85-109 will be examined on the merits.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the protrusions arranged on the gasket, must be shown or the feature(s) canceled from the claim(s). Figure 8, allegedly depicting protrusions 802, appears to show an array of apertures. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 9, 12, 14, 30, 32, 34-39, 85-94, 100 and 106 are rejected under 35 U.S.C. 112, second paragraph, as being unclear for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claims 9, 12, 14, 30 and 34, note that the claims are narrative in form and replete with indefinite and functional or operational language which recites process steps and does not set forth further structural limitations which would provide for the recited functionality.

With respect to claims 32, 92, 100, and 106, the 'member of the array of apertures' in the top lid axially aligned 'with a different reaction well', is unclear.

As to claim 35, 'substantially opposing...regions disposed in opposing surfaces' is unclear.

Regarding claim 36, line 3, it is unclear whether or not the band is disposed in the 'opposing recessed regions' only, or is it disposed around the block.

Referring to claim 85, the structural inter-relationships between the band and lids is not distinctly set forth. Does the band also form the body of the block? See also claim 94.

Claim Interpretation

4. With respect to claims 9, 12, 14, 30 and 34, note that the claims do not recite further structural limitations and, therefore, are not accorded patentable weight.

Referring to claims 1 and 21-24, note that the gaskets are not positively claimed, therefore, they are not considered to be a part of the claimed invention and are not accorded any patentable weight. The same consideration applies to the needle recited in claim 30.

With respect to claims 85, 94 and 102, note that the recitation that an element is "capable to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. (See *In re Hutchinson*, 69 USPQ 138).

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-2, 6-39 and 85-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanchfield et al. (US 6054100) in view of Sanadi (US 5516490).

Stanchfield discloses a multi-well synthesis and filtration apparatus "dimensionally arrayed in a standard multi-well format for performing multiple chemical reactions" comprising a multi- well synthesis block ['reaction block' – Ex.] with flowthrough wells fitted with filter disks, an upper cover ['top lid' – Ex.], a lower cover ['bottom lid' – Ex.], and a pair of gaskets disposed between the covers and the synthesis block (Abstract; Col.1, line 10; Col. 6, line 65). "The synthesis block includes a skirt ['band' – Ex.] which protrudes about the periphery of the block at mid-level, the lateral extent of the protrusion being dimensionally approximately the same as a standard microplate footprint"(Col.4, line 30). As shown in Figure 8, the covers include fastening clips 366,

368 ['attachment components' – Ex.]. Stanchfield does not teach the top lid to comprise protrusions for pressing the top gasket. Sanadi discloses a multi-well plate assembly "which prevents cross-contamination of specimens through the use of a resilient gasket which covers a majority of the top of the plate and is compressed by a lid. It thus provides a sealing assembly for arrays of containers of any size or shape" (Abstract). Figure 14 illustrates an embodiment comprising lid 286 which has projections, or annular collars 284. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed such protrusions in the lids or / and gaskets in the modified assembly of Stanchfield, in order to reduce cross-contamination.

Referring to claim 8, Stanchfield discloses, as shown in Figure 3, outlet spouts 40 having a smaller inner cross-sectional dimension than 'other regions of the reaction well', and an abrupt transition area between the outlet spout and the 'other regions'.

With respect to claims 13, 15, 85-86 and 94-95, latches, hinges, clips and the like are well recognized equivalents commonly used in the art. For example, Figure 1 of the Stanchfield reference depicts latches / clips 66 and 68 disposed on the top and bottom covers. The latches include pivotably rotatable parts ['hinges' – Ex.].

Considering claims 19 and 25-26, Stanchfield teaches that the apparatus can be made of polypropylene plastic, or other materials, such as other thermoplastics as Teflon, metals, and of combination of materials "permanently or removably joined or fitted together" (Col.9 lines 45-50).

As to claims 29, 31 and 104-105 , although Stanchfield does not teach apertures in the lid, covers with holes are routinely used in the art. See, for examples,

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Figure 7 of the Sanadi reference showing top cover 132 having an array of openings, the bottom portion of the openings 144 being tapered. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed apertures in the lids in the modified assembly of Stanchfield, in order to provide compatibility with a dispensing device.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stanchfield in view of Sanadi, and further in view of Cargill et al. (US 5770157).

Although Stanchfield does not teach cavities disposed between inlet portions of the reaction wells, these elements are commonly used in the art. See, for examples, Figure 9 of the Cargill reference showing an additional array openings 176 disposed between the inlets 171. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed additional cavities / apertures between the wells in the modified assembly of Stanchfield, in order to provide extra means for reducing cross contamination.

9. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanchfield in view of Sanadi, and further in view of Bach et al. (US 6413780).

Although Stanchfield does not teach reaction wells having different cross-sections, wells shaped as 'polygon, a triangle, a square, a rounded square, a rectangle, a rounded rectangle, a trapezoid, a circle, and an oval ' are well known in the art (see, for examples, Figures 12 A-O of the Bach reference, Figure 12 B showing a vessel with different inner and outer cross-sections), and, in fact, are considered to be art recognized equivalents. It would have been obvious to one of ordinary skill in the art at

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the time the invention was made to have employed wells of any of the above discussed shapes, in the modified assembly of Stanchfield, in order to meet particular requirements for conducting chemical reactions.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:


Roberts et al. (US 6491873) – discloses plate assembly with apertured cover;

Munson et al. (US 6379626) – discloses clamping arrangements for a reaction block.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Levkovich whose telephone number is 571-272-2462. The examiner can normally be reached on Mon-Fri, 8 a.m.-4p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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